

**REPORT ON
“PASTORAL DEVELOPMENT”**

**CAPITALISATION OF LIVESTOCK PROGRAMME EXPERIENCES INDIA
NEW DELHI**

**INSTITUTE OF DEVELOPMENT STUDIES
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Pastoral Development

1. Background

Geographically, in India, nomadic pastoralism is most prevalent in the dry lands of Western India (Thar Desert) and on the Deccan Plateau, as well as in the mountainous Himalayan regions of North India. Pastoralism, in general, contributes to the livelihood of pastoral communities. It makes contribution to the economy (milk, meat, wool, draft), ecology (nutrient recycling, seeding in dry lands) and bio-diversity (grass and livestock breeds). Pastoralism is acclaimed as a successful adaptation strategy in harsh environments. In the current context of climate change and increasing climatic variability, the relevance of pastoralism is of high importance.

On the other hand there are increasing concerns on the unsustainable use of natural resources (land, forests) by pastoralists because of various reasons (grazing restrictions in forests & agricultural land, changing cropping pattern, conversion of more and more grazing land into national parks & sanctuaries, privatisation of CPR etc.).

Many organisations have been focusing their attention more to grazing and access right related issues faced by pastoralists. CALPI, in its first Phase supported a few NGOs in India working with pastoral communities to facilitate formation of a pastoral network so as to enable the pastoralists to bundle their voice. It is realized that addressing 'access /right issues' is a long term task and requires sustained efforts over many years. Parallel efforts are also required to identify issues that have an entry point. The process should ensure 'sustainability' of ecology as well as enhancing the resilience of pastoral livelihood.

Under these circumstances, CALPI has envisaged a 'platform for pastoral development' through partnership with a local organisation in one of the states where pastoral population is high. Accordingly, a core group was formed with members from different organisations (IDS, SPWD, KRAPAVIS, AFPRO, FD, FTI, Janajagaran, AHD CALPI and ILRI), to prepare a set of working papers on themes related to Pastoralism for public discussion. The IDS, which has been engaged, for over two decades in research on Pastoralism in Western Rajasthan, has actively participated and contributed in the above core group discussion. In this context CALPI has proposed IDS to anchor the 'platform for pastoral development'. IDS has responded positively to this and informed that it is open and willing to take the initial lead in setting up a "Pastoral Resource Centre" (PRC) within the Institute (see Annexure 1). IDS represented by Dr. P. S. Kavoori will co-ordinate the activities of the PRC. To begin with, the proposed PRC will focus on Rajasthan. Subsequently it would seek to develop to have a national scope. Based on this understanding, CALPI has agreed to support IDS financially for the PRC activities till the end of CALPI project (July 2008).

2. Objectives:

The proposed PRC will develop a set of activities to promote socially inclusive and ecologically sustainable pastoral development. Specific objectives are:

1. To facilitate multi-stakeholder debates and discussions on pastoral development
2. To develop innovative intervention plans for field testing
3. To support field testing of innovative ideas and approaches
4. To engage in policy advocacy with government and other stakeholders'
5. To provide leadership and backstopping support to likeminded actors

3. Planned project activities:

IDS will carry out the following activities in partnership with CALPI:

1. Organise a (secondary data) review of “current status and trends of □astoralism in Rajasthan and its economic, ecologic and social consequences”
2. Organise a multi-stakeholder workshop on “Pastoralism, development and sustainability” to:
 - (a) Identify processes that make policies more pastoral and ecologically friendly.
 - (b) Identify (short and long term) activities for future
 - (c) Identify a critical mass of 10-15 committed people /organisations to take the agenda forward
3. Support and facilitate short term follow up activities (that can be completed within the CLAPI time frame) identified through the multi-stakeholder consultation

Activity 1

The review should bring out:

- Documentation of :
 - changes in the number of animals & species held by pastoralists (time series)
 - species shift, if any
 - land holding profile
 - no. of families (and no. of members in each family) depending on Pastoralism and shifts, if any
 - income and economic profile of sedentary /transhumance /nomadic pastoralists
 - use of hired labour for pastoralism
 - movement with/out family
 - complementary arrangements with agriculturists for use of crop residues /grazing /manuring /penning
 - dependence (extend) on forests /revenue land /private land
 - animal health and service delivery
- Ecological implications (because of the changing trends)
 - over grazing, reseeding, manuring, biodiversity
- Marketing arrangements (price, access, middlemen dis/services)

Social implications (because of the changing trends): -drudgery of pastoral women and children, education of children, other)

Current Policy setting (livestock /forest /revenue)

Activity 2

The multi-stakeholder workshop may be organised with participants from the following organisations and others to be finalized:

Government	:AHD, Forest Dept., , Forest Training Institute
Research Institutes	:CAZRI, AFRI, CSWRI, IDS
Management Institutions	:IIMA,
NGOs	:LPPS, KRPAVIS, SPWD, CSE, CEE, BAIF, Sevamandir,

	ARAVALI, TBS, UNNATI
International organisations	:ILRI, FAO, SDC, IC, FF
Pastoral community	:RCVS
Professionals	:Dr Chacko, Dr Jodha, Dr Tej Pratap, Dr John Abraham, (to be discussed)

The proposed multi-stakeholder consultation is a follow up of the earlier discussion in Jan 2007. Suggested guidelines for concerns that the workshop need to address would include;

- ↳ Pastoralism in adaptation to social and ecological changes
- ↳ Integrating Pastoralism with evolving markets
- ↳ Co-production of knowledge and participatory decision making
- ↳ NGOs and stakeholder networking
- ↳ Rethinking 'mainstream development' in pastoral context

Activity 3

The (short term) follow up activities will be decided based on the outputs and recommendations evolved in the multi-stakeholder workshop. IDS in consultation with CALPI will jointly agree to co-ordinate these activities (that can be completed during CALPI time frame).

4. Guiding principles

It is important that participatory approaches, gender balanced principles and stakeholder consultations form the core values of the Centre. Care should be taken to that a plurality of view points is accommodated in the functioning of the centre, keeping in mind the long term viability and interest of pastoralists.

5. Time frame

The time frame of the project will be from 15 August 2007 to 30 June 2008. An indicative programme with time plan shall be jointly worked out by CALPI and IDS.

PROJECT COMPLETION REPORT ON
“PASTORAL DEVELOPMENT”

Pastoral Development (CALPI-IDS Partnership)

As a first step, CALPI and IDS jointly organised a brainstorming discussion on “pastoralism-still a viable option?” on 12th of January 2007 at IDS, Jaipur. The workshop was participated by key people from different departments including Forest Training Institute, ILRI, Janajagaran and XLRI. The participants at the end of the workshop have agreed to contribute in developing five papers on five pastoral themes, for presentation in the second round of stakeholder consultation. It was agreed that Pastoralism needs to be facilitated under the sustainability frame as its (livelihood, biodiversity) relevance is increasing in the context of the predicted climate change and climatic variabilities.

Following this, the Institute of Development Studies has proposed that it will start an “R&D Cell on Pastoralism” within their organisation for institutionalizing the pastoral initiative. The PRC’s role is to:

- (1) facilitate in clearly defining core values, principles and pastoral vision
- (2) act as a vibrant platform to promote the ideology
- (3) broad base the ideology by going beyond the boundaries (institutions in the country and international organisations)
- (4) diversify the funding sources and agencies

The PRC will have different streams of activities. The first stream will be on development of a pastoral vision and perspective and its integration into larger scheme of development policies and programmes through continuous dialogue with professionals, policy makers and practitioners. The ultimate aim is to integrate pastoral perspective in development.

The second stream of activity will be to conduct explorative studies and develop research proposals on various themes such as:

- (a) building solidarity among marginalized groups (Dalits and pastoralists) who have common interest (CPR, livestock) and status (marginalization) to contest dominant groups to protect livelihoods and resources
- (b) Integration of pastoralists and agriculturalists

The third stream of activity will be to establish linkage with other (international) groups.

CALPI welcomed the above idea but made it clear that its support will be based on mutually agreed ToR and the time frame will be upto its phase end.

The second stakeholder workshop was held on 20-21st of November 2007 with the participation of almost 35 participants (Annexure 1). The workshop objectives were:

- Identify processes that make policies more pastoral and ecologically friendly and prioritise those that would have an easy entry point
- Identify (short and long term) activities for future
- Identify a critical mass of 10-15 committed people to take the agenda forward

After the stakeholder workshop, a core /advisory group with 8-10 members (from among the workshop participants) was formed to develop a pastoral vision in consultation with pastoral groups and organisations working with pastoralists in Rajasthan and Gujarat. The members included:

1. Vinay Mahajan -Abihgam Collective (Not confirmed)
2. Sanjay Joshi -FES
3. Hanuman Choudhary -SURE

4. Manjeet Singh - CAZRI
5. D.V. Rangnekar -Consultant
6. Iain Wright-ILRI
7. Hitendra Chohan UNNATI
8. Aman Singh- KRAPAVIS
9. Purnendu Kavoori
10. Padmakumar, CALPI

The Tasks of the core group were:

- visit potential pastoral groups /members
- develop a pastoral perspective considering its contribution to (a) livelihoods in marginal lands /resilience (b) breeders of genetic resources (c) contribution to dry land ecology (d) contributor to sustainable development
- develop pastoral vision document
- develop communication products (report, brochure, PRC leaflet)
- identify explorative studies, develop 2-3 proposals and identify sources of funding

First meeting of the core /advisory group was held in IDS, in which the following agenda items were discussed:

- Orientation of the direction of work
- Nature of the activities undertaken
- Brief Report on the earlier workshop.

- Proposals prepared with partners
- Expectations

Later, a few members of this core /advisory group visited several pastoral groups in Alwar, Udaipur, Pratapgarh, Bhilwara, Bikaner, Jaisalmer and Barmer and had discussion with KRAPAVIS, Unnathi and SPWD.

Following the visits, the group prepared a draft pastoral policy (Annexure 2), which forms the basis for discussion with policy makers.

In the mean time, IDS together with Unnathi prepared a project proposal on “Dalits, common lands and pastoralists” and submitted to UNDP for funding.

The CALPI collaboration ended in December 2008. But it was agreed that the policy advocacy under the leadership of IDS /PRC will continue till the goal is achieved (i.e. integration of pastoral perspective in the larger development agenda by the agencies concerned).

Spotlight on 'sustainable pastoralism'

Special Correspondent

JAIPUR: Policy planners, academicians and representatives of non-Government organisations will deliberate on whether pastoralism can provide a strategic alternative in the quest for sustainable development at a national seminar to be held here on November 21 and 22.

The two-day seminar on "Sustainable pastoralism" will be organised at the Institute of Development Studies (IDS) here under a collaborative support from the Swiss Agency for Development and Cooperation

(SDC). Experts attending the meet will try to identify characteristic features and essential strengths of pastoralism.

IDS Fellow and coordinator of the seminar, Purnendu S. Kavoori, said here on Tuesday that the mainstream development paradigm had failed to recognise the potential of pastoralists to contribute to the growth process, with the development thought and intervention by and large seeking only to "sedentarise and de-pastoralise" the pastoral people.

"Pastoralists have not only continued to survive, but have in many instances

shown remarkable resilience and adaptability to the changing scenarios," said Dr. Kavoori, while pointing out that pastoralists had time and again successfully demonstrated their capacity for incorporating new technologies, institutional-mechanism and economic opportunities for strengthening their livelihood.

The seminar will be attended by representatives of the Ford Foundation, United Nations Development Programme (UNDP), International Livestock Research Institute, Gujarat Institute of Desert Ecology,

Foundation of Ecological Security, Rajasthan Livelihood Mission, Society for Promotion of Wasteland Development and several NGOs.

Prominent experts on the subject, such as D.V. Rangkar, Ajay Dandekar, Vase Sabarwal, Miroti Chakravarty Kaul and Nihal Farooq are expected to attend the seminar. Dr. Kavoori said one of the objectives of the seminar was to examine whether Rajasthan could be declared "pastoral region". The meet also expected to consolidate proposed network of organisations and individuals working on the pastoral issues.

Annexure 1

Draft:

PASTORALISM IN THE INDIAN DRY-LANDS: A Perspective for Creating Opportunities and Building Partnerships¹

Abstract

One aspect that stands out today is the complete ideological and political isolation in which pastoralists are fighting their struggles for survival. In particular it is striking that pastoralists and those engaged in advocacy have generally failed to link their concerns with the agenda of emerging social movements, in particular those concerning displacement, human rights and governance. Where a pastoralist leadership has emerged, it has sought to build patron-client relations with influential political individuals, for purposes of fire-fighting, with little by way of a long term vision or purpose. It is clear that one of the critical challenges facing pastoralists is that of finding partners and a place for their concerns in larger social and ecological struggles. This unfortunately has not been happening, in part because those in empathy with pastoralists have tended to come from professional backgrounds of veterinary science or ethnography. Although this situation is now changing, -with activist groups and social workers from diverse backgrounds trying to come to grips with pastoralist issues- anti-pastoralist assumptions are implicitly and explicitly shared by a wide range of political and economic ideologies, left or right. Changing ones perspective on pastoralism eventually entails therefore a need for important changes in our prioritization of the objectives of development.

¹ Prepared by a core group (led by Dr Purnendu S Kavoori, Institute of Development Studies) based on field visits and a series of consultations as part of the project on “Pastoral development” supported by CALPI programme of the Swiss Agency for Development and Cooperation and Intercooperation.

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II. **Pastoral Marginalization: Its Historical Basis and Ideology:**

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IV. **Conclusions: Pastoral Livelihoods in an Ecological Transition**

- Pastoralism is not only adapted to extreme physical environments, but to cope with hostile political environments as well!

I. **Introduction: A Perspective on Advocacy:**

There are broadly four phases of education and 'unlearning' which those engaged in intervention among pastoralists seemingly travel through. In the first phase the pre-conceptions and assumptions of mainstream development vis-à-vis pastoralist populations have to be examined and critiqued. Resistance and anti-pastoral biases run deep in the developmental community whether it is the various national and international bureaucracies, the environmentalist lobbies, the legal system, or even rights based 'grass-root' associations. Invariably sedentarization and de-pastoralization are seen as the solution to the challenges of integration and modernization. Anti-pastoralist assumptions are implicitly and explicitly shared by a wide range of political and economic ideologies, ranging from communist regimes to free market lobbies. They will be found equally distributed in societies where state structures are overpowering as also in those where the grip of the state is quite superficial. Similarly for societies which may be democratic and participatory as against those with authoritarian or military regimes. Getting past this first step is most important, since from a practical point of view it prevents intervention energies from being spent on efforts that contradict the basic objectives and strengths of pastoralism. The second phase is that of translating the logical rationality of pastoralism in semi-arid environments to concrete situations. The potential contributions that pastoralist systems can make towards livelihood security and sustainable resource use are hard to demonstrate in the short term or on the basis of economic criteria alone. For two reasons however this situation is gradually changing. One is that the historical course of agricultural intensification and expansion – which formed the core of developmental strategy in the past fifty years - has begun to run out of steam. The economics of mainstream development based on agricultural capitalization is becoming harder and harder to justify, in terms of material inputs as well as human costs. It is becoming necessary therefore to look at alternative systems of production from a purely livelihood perspective. Secondly the ecological 'long term' is also beginning to kick in, as semi-arid and arid regions start to show the consequences of indiscriminate and short sighted resource exploitation. An institutional – and perhaps even political - environment is therefore slowly emerging in which pastoralist options are now open to consideration. In order to capitalize on this however it is necessary to demonstrate specific situations in which pastoralists can be shown to have worked out solutions through which their livelihoods as well as resources have been optimised.

The third stage of learning involves grappling with questions of social mobilization. Along with a proper grasp of the scale at which the struggle for pastoral legitimacy has to be waged, there is also need to understand that pastoralist struggles cannot be fought in isolation. It is important to recognize also that pastoralist do not form a community on a global scale. Representatives can meet at international forums and understand each others circumstances, but their circumstances are vastly different. For pastoralists struggles to acquire an effective

voice they need to build partnerships and solidarity with other communities in their own societies and environments. Pastoralists are clearly not the only 'victims of development' and there are inevitably many other marginalized and vulnerable groups in developing societies. It is with them that pastoralists need to develop common fronts. They have however singularly failed to do so, and one of the reasons for this is historical: Pastoralists invariably do not see themselves as marginalized and poor. The circumstances of impoverishment and disempowerment are new to them.

The fourth stage – and this perhaps is contestable – is that of prioritizing intervention in terms of region and politics. The developmental priorities that influence the future of pastoralism are not shaped in the regions dominated by pastoralist populations. It is worthwhile perhaps to make a distinction here between the core areas of pastoralism and the core areas of 'pastoral development', for the two need not be the same, and in fact are not the same. What is evident however is that the fate of pastoralists in the core regions of development intervention usually sets the trend for outcomes else where. To put it provocatively what happens to the development-pastoralist interface in China and India, has possibly greater significance to the future of pastoralists the world over than what happens to them in let us say Mongolia or perhaps Somalia or even Afghanistan. It is arguable that if pastoralists can negotiate successfully in state systems that have a history of systematic and long term intervention, they can make an influential contribution to the shaping of development as an inclusive process. These regions may not house the bulk of the pastoralist population of the world, but what happens there is influential in deciding what happens in other parts of the pastoral world.

II. Pastoral Marginalization: Its Historical Basis and Ideology

As in many other aspects of contemporary concern the foundation of policy and value orientation that shapes our approach to pastoralism was laid during the years of colonial rule. We know that the colonial years witnessed fundamental changes in the political and economic system, affecting a whole range of social and ecological relationships. Although it is usually not recognized, pastoral habitats were among the major resources and ecosystems which were marginalized as a consequence of colonial priorities. In order to understand how this happened we need to look at colonialism's larger ideological complex. It is only by locating pastoralism within the larger context of what was happening to its resource base that we can begin to appreciate the power of the processes undermining pastoral practice, as well as the logic that continues to shape our approach to pastoralism even to this day.

Colonial Sources of Policy Bias:

Among the more lively issues in Indian social history is that concerning the emergence of so-called 'criminal tribes' during the colonial period, captured with drama and brutality in the practice of 'thuggee'. One explanation seems to be that the emergence of groups engaging in crime was

closely related to their economic displacement and social dislocation. It is thought that colonial policies directly and indirectly created the conditions that promoted these forms of anti-sociality. In contrast to pre-colonial states, colonial relations with local populations and resources tended to be more sophisticated in its extractive mechanisms. As against primitive forms of accumulation based on force, colonial systems of extraction were primarily economic. What it did practically was to exclude populations that could not be incorporated in its economic agenda. Thus groups engaged in occupations that could not feed into the colonial economy, were increasingly peripheralized. The Criminalization of groups formed a part of this process, setting into motion a complex whereby populations were pushed into criminality by the priorities of the colonial production system, and their lawlessness in turn reinforced the experience of exclusion and marginality.

It was not only human beings however that Colonialism marginalized, the logic of exclusion extended to other species as well. The British were not the first 'big game' hunters in the sub-continent, nor were they the first rulers to lay exclusive claims to hunting privileges. As is well known, the Arthashastra makes detailed claims over the King's rights to forests and hunting. What was new to the British Raj was not the idea of 'game' but the assimilation of that to the notion of vermin. Colonialism thus created new categories of the unwanted, not just in the human world but in the animal world too. While hunting remained a source of ruling class pleasure of the most exclusive kind, it took place against an insidiously purposeful background. The advance of colonial production, its agrarian and commercial interests required that more and more land be brought under a uniform plough. Forests became important as sources of timber and rubber, rather than as habitats for a diverse fauna and flora. By much the same logic, and with as much force, much as human groups were sought to be criminalized, entire species of animals were in principle declared fit for extermination. The frequent extinction of species that we see in many parts of the world during the colonial years –and not just in India- was not the incidental consequence of gun power. Humans have had the capacities to exterminate other species for quite some time; it was colonialism that found it necessary to do so.

In the same way we believe it can be argued that the seeds of what is happening to pastoral habitats today were also laid in the colonial years. In contrast however to what happened to social groups and or even the fate of wildlife, there is little discussion on the fate of grasslands during the colonial years. Historical research is required to know what areas of pastureland disappeared under colonial rule. Was this a consequence of the expansion of arable, or were there also other reasons? It was during colonialism that the idea of 'wasteland' as a formal administrative category acquired prominence. Historically 'Waste lands' is a medieval English term for lands from which the government could not collect tax. Wherefrom did these wastelands emerge? The aspect that this administrative typology captured or sought to express was not the

nature of the land and its resources but its relationship to the priorities of production. It is slowly being recognized that the vast majority of the tracts of land that are classified as wastelands are not wastelands today and they were not waste lands in the past either. For the most part they are more often than not pasturelands, which even today continue to be used for the pasturage and other purposes. In much the same way therefore that colonialism created the criminal tribe, that it created the Vermin, we believe it had a role to play in the construction of wastelands.

Development Process and Implications for Pastoral Resources

The years following independence witnessed obvious changes in the language and manner in which the state sought to articulate its human and natural resources. The discourses on criminality eventually gave way to an altogether different framework which sought to maximize and exploit natural potential. Whereas the colonial state had sought legitimacy in the language of 'Law and Order', the post-colonial state evolved the language of 'Development'. On the face of it the language of law and order and that of development base themselves on very different kinds of assumptions. The crucial question however is what these assumptions lead to. Thus if law and order forms part of a chain leading to the criminalization of excluded, what are the consequences of development? Has development been an entirely inclusive process, does it not have its principles of exclusion. Whom does it exclude? What does it exclude and what happens to those or that which development excludes?

In immediate terms the issue for us is what development has meant in terms of its consequences on the fate of pastoral habitats, and how it has shaped perception towards its human and natural resources. In a nut shell, the manner in which mainstream development impacted on the pastoral habitat was largely shaped by a focus on productivity and marketability. Intervention was driven by a concern to maximize productivity and emphasize those resources that could be directly integrated into a commodity economy. This had two direct consequences on the status of pasturelands. On the one hand the expansion of agricultural acreage took place at their cost. Most of the tracts into which agriculture expanded in semi-arid lands were grasslands directly undermined their physical extent. The second consequence ensued from the efforts at agricultural intensification. Especially in the context of dry lands, rain-fed agriculture forms part of the grassland system rather than a separate oikumene. All this changes with the emphasis on intensive input applications aimed at enhancing productivity. The field develops strong boundaries and ceases to a part of the larger habitat. With intensification also come multiple cropping and a decrease in the time available for grasses to grow. Weeding becomes more intensive and with chemicals more permanent. Whereas rain-fed agriculture in dry-lands has a relationship of contiguity with its grassland context, the advent of irrigation whether by canals or tube motorized wells creates two separate worlds, which from being largely complementary develop an antagonistic character.

Last but not least development intervention directly and indirectly undermined the institutions that supported grasslands. Historically grasslands have existed under institutional regimes based on common property rights. By and large common property institutions have weakened in the course of development intervention. In the main different forms of private property have accompanied the process of agricultural expansion, and by and large state institutions have done little to strengthen or support collective community based strategies for resource management. Encroachment i.e. illicit occupation of common property resources especially pasturelands has been rampant, as cultivators sought to bring in more land under the plough at every step. In recent times this random process has become more systematic as the state has sought to appropriate large tracts of grassland in the interests of private industry. The present day euphoria over the cultivation of jatropha as a bio-fuel, represents perhaps the most direct attack on the grassland habitats since independence. It does appear unfortunately that history repeats itself and India since independence had much the same vision of grassland biodiversity as did the colonial rulers. The present phase has thus an even more diabolical perception of grass lands as waste lands and with the pressures of the impending fossil fuel and energy crisis, the communities that live in them and the livestock they rear are clearly in danger of getting pushed further into the fringes perhaps to be extinguished forever.

III. Alternatives: Beyond Conservation and 'Mainstreaming':

Is there, or can there be any prospects for a pro-active pastoralism, that is not always on the back foot, but which can contribute constructively and creatively to the social and ecological changes that the coming century must necessarily witness? As we see it the core challenge of the coming century is going to be that of ecological survival and livelihood security, not just economic growth, techno-development or modernization. In this context we believe that what pastoralism as a system of production and a source of livelihood has to offer is relevant to the emerging needs and challenges facing the coming century. It is not that pastoralism offers a return to primitive conditions, rather we see pastoralism as forming one important strategic element in an alternative model of social and ecological ethics. If Pastoralism can help evolve methods of resource use that offer an alternative to the present day predatory and unsustainable systems, then this should be fully explored. However ecological alternatives do not emerge in a political and cultural vacuum, pastoralists must also seek to form a clearer political understanding of their situation. There is no sign of this however among pastoralists or even among the advocacy groups concerned with pastoralists.

In the remainder of this paper we shall introduce different dimensions of development which affect pastoral livelihoods directly and indirectly, and indicate the role that a specifically pastorally oriented perspective can help not just pastoralists but contribute to the development and orientation of the larger production and social system. First we look briefly at what a pastoral

perspective can contribute to agricultural and land use policy, second we look at the potential role that pastoralism can play in the rational utilization of irrigation systems in dry lands, and thirdly, we consider the role that pastoralism can play in the reconstruction of ecological post-disaster scenarios. Lastly, and at greater length we look at pastoralists and the broader community context in which they are implicated, and specifically explore the question whether pastoralists and dalits have anything to learn and gain from each other.

Pastoral Perspective on Agriculture and Land Use:

Pastoralism is a major system of land use which not only provides livelihoods to many, but provides options for the sustainable use of resources in dry lands where other alternatives are neither cost effective nor ecologically sustainable. The most important feature of pastoralism in the Indian sub-continent is that it has largely evolved in complementary relationship with the agrarian production system. It is now widely recognized that regions and tracts where pastoralism is practised to the exclusion of agriculture are few and becoming fewer. The major bulk of the pastoralist niche is constituted within the interstices of agrarian production. What happens to the agricultural system is thus of crucial importance for the well being and viability of the pastoral production.

In contemporary situations however agriculture has proceeded in a manner that has left no space for systems of pastoral production, both intentionally and otherwise. Firstly there has been an active bias against pastoral systems of production which were seen as low productivity and low efficiency systems, leading to an emphasis on capital and technology intensive husbandry and fodder production options. The approach engineered a split between pastoralism and agricultural production systems. Agriculture began to be seen a closed system, rather than an interlinked open system. Secondly the expansion of cultivation and crop intensification also lead to a decrease in physical and seasonal niches that pastoralists utilize, leading to a conflicting or at any rate a competitive relationship between agriculture and pastoralism.

The challenge today is to reproduce the historical complementarity in contemporary contexts. In part this is necessary because pastoralism cannot survive otherwise, and a valuable component of diversity and source of livelihood will atrophy. Secondly it is now becoming evident that the existing pattern of agricultural development is not viable in the longer term both ecologically and socially. Alternatives need to be found, which are sustainable and supportive of livelihoods of marginalized populations. Pastoralism is one of the options which can develop a sustainable land use and livelihood complex. However this can only become a practical option provided agriculture and pastoralism once again develop a synergetic relationship. Under present circumstances neither agriculture nor pastoralism are sustainable on their own. They need to complement each other in order to develop a sustainable land use system capable of

supporting a diversity of livelihoods. Every effort therefore needs to be made to explore and maximize the avenues that are available.

The most obvious area where this synergy can be developed is the semi-arid and arid dry-lands. These are the natural stamping grounds of pastoralists and notwithstanding all the problems they face, pastoralism remains an important and effective livelihood alternative. The need for a land use policy to prioritize pastoral concerns is strongest here. In particular this holds for agricultural interventions. Thus the development of cropping patterns that conflict with pasture requirements should be discouraged. Hybrid crops with higher water need and low fodder productivity should be avoided. This is one area where extension of arable tracts into marginal tracts should not have taken place at all. It has been done, but every effort should be made to halt it. In particular the allotment of marginal lands to private enterprises should be seriously reconsidered, for these lands provide essential resources for the majority of people living in these areas. While it is unrealistic to aspire to a restitution of the earlier accommodative relations between agriculture and pastoralism, the present drive to intensive exploitation is simply unsustainable and increases the vulnerability of people to long term livelihood collapse. Institutional restraints will have to be put in place if the semi-arid and arid regions are to be brought under any semblance of sustainable resource utilization. This can best be done by a policy and land use frame work which seeks to maximize and develop the complementarities between agriculture and pastoralism.

Beyond the arid and the semi-arid zones also there is considerable scope for improving synergy between the agricultural and pastoral systems. One way in which the importance of this relationship can be illustrated is by looking at what is happening to the pastoral patterns of migration. As is well known seasonal mobility in varying degrees lies at the core of successful pastoralism and is the basis on which they not only access resources but also develop symbiotic relationships with other populations. Notwithstanding state apathy – even antipathy- pastoralists in the Indian sub-continent have not ceased to migrate, although their patterns of movement have changed. While on the micro scale it is invariably pointed out that pastoralist spaces and resources have diminished, on a larger scale however it can be contended that it is precisely due to the major changes in agricultural patterns that pastoralists have managed to increase or expand their realized niche. Thanks to extensive migrations into agricultural regions that they did not access earlier we have witnessed something of an expansion in the geographical spread of pastoralism. We believe that what is happening possibly is that agricultural and pastoral interactions are moving from one equilibrium to another that is still in the making.

Third and not the least, semi-sedentary variants of a pastoral type of husbandry can also integrate successfully into intensive small scale agriculture that is carried out in semi-humid and

forested regions. There are a wide range of examples of small farmers who cultivate a limited amount of labour intensive and high value crops complementing their incomes with animals kept on free ranging grazing systems. These types of husbandry cannot strictly be called pastoral but are more akin to it than that based on stall feeding. They have a subordinate but important role to play in providing livelihoods, and are as in the case of animals kept by pastoralists, an important source of security when agricultural conditions turn unfavourable. The animals here are quite different in species composition, but the principle on which they provide for security and contribute to sustainable ways of utilizing resources has much in common with the pastoralist brethren. Here also therefore lies considerable scope for maximizing the complementarity between the agrarian and livestock production systems.

Finally a perspective on land use must take into consideration landscape and habitat diversity. Here also pastoralism and agriculture have a complementary role to play, because while both pastoralism and agriculture influence and shape the landscape and habitat, but they do so in ways that are different. The impact of agriculture on the habitat is directly visible to us and the consequences of the impact are also not too difficult to recognize. Levelling of lands, ploughing, weeding, sowing, all have a direct hand in changing the landscape and in a broad sense homogenizing it. This homogenization process is something that has impacted very strongly in the course of agricultural expansion and intensification that we have witnessed over the last half century. Although there is a great deal of diversity in agricultural habitats, in the context of semiarid regions, the expansion of arable has largely contributed to a reduction in the diversity of the landscape and a loss of niches that went into making up a habitat.

The role of pastoralism has been much more subtle, and largely invisible, but it is no less important. Pastoralism in general exploits the diversity of landscape more effectively than agriculture. It shapes the habitat very gradually and by means that are largely organic rather than mechanical. Through regular grazing, the introduction of new seeds, the maintenance of seasonal cycles of movement, that pastoral systems gradually optimize a landscape to suit their needs. Rather than homogenizing the landscape pastoralism thrives on diversity in a habitat even contributes to the shaping of this diversity, at various levels. Agriculture and pastoralism feeds the landscape in very different and ideally complementary ways. As our understanding of the complex feedback mechanisms that have evolved between these two systems becomes better, it might even be asserted that it is this unity of agriculture and pastoralism that has produced a sustainable and diversified primary production system historically.

We can see that Pastoralism and Agriculture have evolved in the Indian sub-continent in a close and inter-dependent relationship. Planning for agriculture and land use has however rarely if ever included a pastoral component. There are thus good reasons for incorporation

pastoral production priorities in agricultural policy making. Changing crop cycles for instance have an obvious consequence for the movement of pastoralists. The lengthening and shortening of agricultural fallow periods can indirectly affect the age of sale of pastoral livestock. Health considerations warrant reduction in the use of pesticides and chemicals in agriculture, since these directly affect animals grazing on crop stubble. There is a clear need to incorporate pastoral interests in planning for agricultural growth and development. However for this understanding to mature there will need to take place attitudinal changes in the environment shaping policy, and a greater awareness among the developmental community of the positive and constructive role that pastoralism can and is playing in contributing to livelihoods and sustainable resource use.

Pastoralism and Canal Irrigation Systems

Large scale irrigation projects especially Canals, have without exception been geared to enhancing the dependability of agriculture. This has led to the complete neglect of options that are not developed around an agricultural model. In particular the possibility that pastoral production systems based on low water utilization and open grazing regimes can be part of a developmental package woven around the irrigation technology has never been explored.

A large canal irrigation system is a contrast to a river system: strong at its source, it gradually weakens. The challenge of making the irrigation systems more effective and sustainable has therefore two components. One it becomes necessary to find ways of using its water that are more and more economical as it moves along its course. What may be a viable form of utilization at the start or in its upper course will almost never be feasible at its tail end. We need to consider options that are based on low levels of water utilization, both in quantity and in frequency of availability. Along with this we need to explore options that do not encourage or are designed for a high concentration of inputs, that is to say of applications that can exploit dispersed resources.

Can canals be used to foster pastoral production systems that facilitate the sustainable use of natural resources and strengthen the resilience of local livelihoods and communities? We believe that this option is worth exploring. Pastoralism is geared to the exploitation of transient, scarce and dispersed resources. These resources are primarily water and grazing. Pastoralists successfully distribute production risks through rapid movement in response to localized opportunities for resources over which there is little competition from other populations. At a logical level therefore is the possibility of a good match between what pastoralism as a system of adaptation has to offer and the constraints that canal systems exhibit in the context of tail end desert environments.

There are two major canal systems that fall in the desert areas of India. The first is the Indira Gandhi Canal that runs across the northern boundary of the Thar Desert, and the second is the last leg of the Narmada or Sardar Sarovar project that traverses the coastal boundary of Kutch. In the first case the canal has already come into existence in the second case the actual canal is yet to materialize. There are however fairly clear indications that the existing model of utilization based on mainstream agricultural development has many serious problems, and there is enough to doubt their sustainability. In this situation there exists good reason to explore pastoral production alternatives as a possible means for developing a sustainable system of utilizing these emerging canal regimes.

Pastoralism and Ecological Disaster

Development stands today at a threshold, when it is clear that much that was central to its programme and implementation in the post colonial years is coming to a slow but grinding halt. Particularly in the context of dry land habitats, development interventions have in more than one instance come full circle, and more ecologically sustainable and resilient ways will have to be found. Does pastoralism offer strategies for recovery in such 'post-development' scenarios?

At its fundamental level, the logic of pastoralism is an ecological one. Even as it has its economic rationality - offering security of livelihood in an unpredictable environment - it is not because it is economically efficient that it provides security. What pastoralism has to offer in the longer run is resilience rather than rapid increases in productivity. Pastoral resources are the simplest and hardiest of natural resources. Even in the most extreme conditions pastoralists find vegetation on which their flocks can survive. Where overexploitation and degradation perhaps through cultivation or even mining has exhausted a land, shrubs, grasses and small forbs will gradually make their way. This is enough for a pastoral beginning. Most real world situations are however not extreme, and therefore resource intensive and unsustainable methods of exploitation continue to be deployed when alternative ways of livelihood can provide greater security. In this second section we explore an actual habitat located in an arid and semi-arid environment, with a long history of pastoralist presence. The habitat area comprises the banks and adjacent tracts of a semi-perennial river by the name Luni running through the desert of western Rajasthan. The objective of the example is to illustrate a larger dilemma, for what is happening in this particular habitat is not unique to it, but is to be encountered in other parts of the semi-arid world.

The tract comprising the drainage of the Luni river can be called an agro-pastoral region. Being a seasonal stream the Luni carried water in the best of years for no more than two or three months. This was enough however to form the basis of a long and narrow stretch of irrigated agriculture along its banks based on shallow open wells recharged by the annual flow of the river. Since much of the tract through which the river runs has saline sub-soils, deeper wells were a rarity. Beyond this narrow and privileged strip of irrigated fields, lay a vast swathe of rain-fed

tracts. Based on millet cultivation and animal husbandry these tracts housed the bulk of the population. Further beyond, lay the pastoral parts where no cultivation was possible. The pattern of pastoral resource use involved four stages of movement. Flocks would be grazed in the pastoral tracts through the rainy season and through the period when the rain crop was standing. Following the harvest in October these herds would descend into the single crop lands for grazing on stubble and post harvest vegetation. This would last until March when the winter crop would be harvested in the irrigated strips. Here the animals would graze for a month or two and then finally descend into the river bed which itself was an enormous grazing ground, with a variety of pasturage. With the coming of the rains and the flowing of the river the cycle would begin anew. The annual flow of the river and the pattern of land use complemented each other to make for a sustainable and diversified system of resource use in which pastoralism had a crucial role to play.

Mainstream development intervention however did not begin with an appraisal of the system described above. It sought goals determined by objectives of increasing production and not sustainability. Its first objective, the expansion of agricultural acreage, gained an order of magnitude with the introduction of tractors. In the process a drastic reshaping of the landscape was effected and a variety of types of land use were reduced to one. The better pastoral tracts were the first to be diverted to cultivation, but gradually even the most marginal and unsuitable locations were not spared. What effect this had on the topography and drainage networks of the habitat are pretty obvious, and one of its most important negative consequences was on the river. Entirely dependent as it was on local drainage networks the Luni gradually ceased to flow. The second critical element reshaping the production system was the intensification of this agriculture. Most important in this was the introduction of motorized or electrified tube wells. This completely transformed the landscape of the country side in ways that simply an expansion of the area under cropping could not have. Thus cropping cycles changed, the crops themselves changed, and the methods of cultivation changed as the system moved from subsistence to commodity production. For some thirty years this was the mainstream pattern, and only thereafter did its long term consequences begin to kick in. Water levels fell at alarming rates over the decades. Worse, as most of the belt through which the Luni runs is saline, with falling water levels salinity also began to climb and spread. Where saline stretches began to surface, cultivation became acts of desperation. Elsewhere poor soils that had been forcibly ploughed began to erode. With choking drainage channels local water sources often dried up. In years of drought people abandoned their cattle for want of pasture and water.

Thus this habitat is facing a crunch today. The river no longer flows, the open wells have dried up, the rain-fed tracts are turning saline, and pastoralists are hard pressed for grazing: the earlier system has been turned inside out, with increasing vulnerability for many whose

livelihoods were rooted in local resources. It is a crisis that has unfolded slowly, and not being based in a natural calamity, there has been a reluctance to recognize it. Is there a way forward? We believe there is and it is to be found in the phenomenal capacities of pastoralism to adapt to conditions, where other livelihood strategies are unviable. A disturbed habitat such as that of the Luni, is not perfect for anything. It is certainly not suitable for further agricultural intensification. It is a habitat that is no longer perfect for pastoralism either. By most accounts pastoralism is facing a crisis. The traditional spaces for pasture have diminished, the institutions supporting them have declined, and neither the state nor the development process seems to have much interest in them. In contrast to agriculture however, pastoralism has not been directly involved in the indiscriminate destruction of the ecosystem. It is much less dependent on the gains of that exploitative process. Unlike agriculture therefore, pastoralism is not riding the tiger of an ecologically destructive development. Pastoralists have suffered its wrath for certain, but ridden it they have not. As the costs of agricultural intensification and expansion become unmanageable, the simpler solutions that pastoralism has to offer might begin to look more attractive.

Pastoral Perspective on Community and Stake holder Relationships:

Regardless of their caste composition, and economic status, pastoral populations today are invariably marginal members of local communities. While unlike populations from depressed groups such as dalits, pastoralists are not as such discriminated against socially and in some instances pastoralists themselves are members of dominant groups, more often than not pastoral populations are neither at the top nor at the bottom of the social hierarchy. Then why is it that pastoralists often find themselves isolated in community contexts?

At the heart of the isolation of pastoralists has been the gradual meltdown of the 'accommodations' on the use of resources within the framework of traditional institutions. In the process pastoralists became marginalized, and gradually ceased to occupy legitimate space in the institutional dynamics of local communities. This transition coincided also with the transition from 'traditional' political structures to modern state and its local institutions. To the simple question therefore of why pastoralists are marginalized in local contexts therefore we have a somewhat complex answer. Thus in the field when this question is asked there is usually a simple reply, namely that 'they are not included because they are away on migration for much of the year'. However this is not the real answer. Their absences –and increasingly long ones at that – are not the cause but a manifestation of a larger process of exclusion they have been subjected to by a process of development that has directly and indirectly undermined their resources and their livelihoods. The challenge therefore is how to overcome this marginalization in the present dispensation.

There are two crucial guidelines we suggest to take up the challenge of countering the marginalization of pastoralists in local communities and increasing their stake in local institutions. One is that of identifying new community partners. Here the need is to identify members in the community who share an interest in the preservation of resources and institutions (i.e. regulatory frameworks) important to pastoralists at the present time. Most likely these will be members of other marginalized and vulnerable communities, with whom pastoralists have perhaps had little to do in the past. Second they will need to assert their claims in the framework of contemporary local institutions, instead of seeking to revive traditional customs and practices. This also they can only do by building partnerships with other marginalized and vulnerable groups in the local community contexts. In the penultimate section of this paper we reflect a little more on these aspects.

Dalits – Pastoralists and Common Property Resources: A Potential partnership

What is interesting –and speaking for western Rajasthan here – is that insofar as their relationship with livestock and common property resources is concerned the two populations that have suffered most are pastoralists and dalits. Both have vulnerable livelihoods and are dependent on livestock for their survival. Even though they do not by and large keep the same animals, they are relying on the same sets of resources and local institutions. Both groups however consistently spurn each other, one radicalised and the other conservative.

The last fifty years have seen a rapacious occupation of common property resources. This applies to entire range of common property resources. Gradually and inexorably all forms of common property have been encroached upon, mostly for purposes of cultivation, but sometimes for other purposes also. It is not just the physical appropriation that has been remarkable; equally striking has been the rapid undermining of the supportive institutions that kept these common resources intact. In a general way we can say that by and large it has been dominant groups owning the better lands and resources that have been able to dispense with the commons. It is not clear however where the interests of subordinate groups in particular dalits and pastoralists has lain in this process. What needs therefore to be enquired is how much under-privileged groups have gained from the undermining of the commons and what they have lost in this. Can it be that there is a case for reinventing their relationship with the commons?

When we think of securing Dalit as well as pastoral livelihoods, we almost always think of ways to develop new or alternate sources of making a living, as against strengthening their existing means of livelihood. In the case of dalits this is because many of their traditional occupations are regarded as demeaning. However, if we leave aside the most extreme cases of degrading labour (e.g. carrying night soil or skinning carcasses) not all their occupations are intrinsically distasteful. This is especially true for Dalit groups allied to agricultural and pastoral

activities. Their social esteem is low and invariably they are very poor, but other than in the feature of exclusion they have a lot in common with other underprivileged non-Dalit populations. Pastoralists, even though they do not experience the social exclusion that dalits face, are nonetheless regarded as an anachronism. Their development is for the most part is thought achievable only if they can move out of a pastoral way of life. For both groups, and for good measure, their insecurity of livelihoods stems also from their lack of control or influence over local institutions and decision making processes.

The fact is that dalits as also pastoralists are caught in a trap that is both practical and ideological. On the face of it there is so little of value left in Common Property Resources that it is very difficult to see any potential in them, much less enthuse communities to work for their recovery. The dominant development ideology centered on technology and privatization has cast a complete spell on everyone: What a Dalit/Pastoralist wants, is a tube well and private land. The strategy is thus an imitative one and fails to recognize that not only is it proving unsustainable from an ecological point of view, it is also not likely to benefit their livelihoods either. The lands they receive are the worst of the left over lands with poor potential in so far as agriculture is concerned. If the strengthening livelihood is our objective, then land allotment may perhaps have more symbolic than practical value for both dalits as well as pastoralists.

In this situation, both dalits and pastoralist may perhaps stand to gain from strengthening Common Property Resources more so than from the privatization of agriculturally sub-optimal tracts. It is true that the commons have been neglected, but this is because the dominant groups have no stake left in their perpetuation, for the institutions that managed the commons were controlled by these groups. If dalits and pastoral groups can recognize their potential interest in the commons, they can reorient re-orient their relationship to the institutions that traditionally supported the commons. A little reflection suggests that their interests –and voices- have been and marginalized have allowed decision and control over institutions that influence their lives and livelihoods in the hands of powerful others.

IV: Conclusions: Pastoral Livelihoods in an Ecological Transition:

There are many users of semi-arid and arid lands, but among primary producers pastoralists are probably the most intimately tied to this ecosystem for their livelihoods. By most parameters their livelihoods stand or fall with the fortunes of these habitats. On the one hand pastoralism has often had to carry the blame for the deterioration of dry-land eco-systems; at the same time others have considered pastoralism to be a most sustainable system of utilizing their resources. The truth is probably something in between and pastoralism is neither inherently destructive nor conservationist, rather it is the circumstances in which pastoralists have to make their living which determines what comes of it. More than anything therefore we have to

understand the changing circumstances in which pastoralism has to function, in order to appreciate its potential and its limitations. As in the instances discussed above, the historical path followed by pastoralists has been deeply shaped, initially by colonial practice and ideology, and subsequently by the priorities and rationalizations of the developmental state. However, even as we recognize the processes that contributed to the marginalization of pastoralism, it is important to remember that pastoralism it seems is not only adapted to survive in extreme physical environments, but also it would seem to cope with hostile political and ideological environments as well!

One can thus exaggerate the significance of the conflict between pastoralism, pastoral resources and the colonial system, for the crisis of pastoralism only *begins* with colonialism, and the challenges that pastoralists face today are not entirely colonial in their making. Whether they choose to remain pastoral or not will be decided by what pastoralism has to offer as a response to *contemporary* conditions and little else. While the isolation that pastoralists find themselves in, is in part their own making, more than that they have been the repeated victims of discriminatory discourses and policies, and it is this that need to be contested. To a considerable extent, pastoralists as well as those engaged in its advocacy have internalized the negative discourses. Rarely challenging the bias towards sedentarization and one sided emphasis on agriculture, policy makers, community and civil society agents have missed the wood for the trees: namely that pastoralism is a not only a sustainable resource use system, but one that has been growing steadily even under adverse circumstances. It is not pastoralists that have isolated themselves from development but development that has isolated itself from pastoralism.

Today as ecological concern on various aspects of mainstream development acquire prominence in a larger social and economic critique, pastoralism needs to not only to find a place in these discourses but to stake claim as a socially significant livelihood alternative. Pastoralists have suffered the brunt of mainstream development in many ways, and this process has also fundamentally transformed them. The pastoralists of today are not the pastoralists of colonial India, economically, ecologically and socially. They are completely integrated to the commodity economy. Their ecological niche is intimately tied to the agricultural cycles of the present time, not the past. Their social composition has also changed somewhat. In order to move forward pastoralism has to expand, it has to acquire new ecological niches, and build new political and economic relationships. Pastoralists themselves need to move out of their traditional patron clientage relations, for the overlapping of interests that held in the past no longer hold. They need to find solidarity with groups and communities that have undergone similar histories of dispossession and marginalization as themselves. Therein lies the future of pastoralism.